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# ON THE QUANTITY THEORY OF GOLD

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# ON THE QUANTITY THEORY OF GOLD

With Special Reference to Prof. Cassel's Theory

## 1. INTRODUCTION

There is a general tendency among economists today to look upon the relationship between gold and commodity prices from the standpoint of gold, with special reference to the existing world economic depression, especially after the publication of the interim reports of the Gold Delegation of the Financial Committee of the League of Nations in September, 1930. The interim reports contain various suggestions and remedial measures, all of which are more or less based on the quantity theory of gold and prices. Attempts hitherto made to secure a deeper insight into the relationship between these two economic factors have inevitably led to further efforts for a fuller understanding and critical analysis of the underlying quantity assumptions of this relationship. I shall treat in this article the quantity theory of gold, which has been the leading idea of the Gold Delegation.

Some of those who study gold and prices from the standpoint of the quantity theory consider their relationship as causal, while others regard them as being reciprocal, the Gold Delegation belonging to the former group. Moreover, the Gold Delegation places great emphasis on gold, rather than on prices.<sup>1)</sup> The Delegation rejects the views of those who deny the existence of any relationship between the world's stock of gold or monetary gold, on one hand, and the general level of prices, on the other; and is opposed to those who, while admitting the existence of some relation between gold and prices, do not admit its causality; and also in the main is opposed to the view that places emphasis on prices rather than on gold. The ideas and opinions of

1) League of Nations: Interim Report of the Gold Delegation, p. 71, pp. 86-87.

the Gold Delegation should in fact be described as a quantity theory of gold. It is the object of my article to elucidate the meaning, the content and the special characteristics of the quantity theory of gold as I understand it.

I have thus delimited the sphere of my study. But I wish to state further that the views set forth in the interim reports of the Gold Delegation and generally described as being an exposition of the quantity theory of gold are really based upon the ideas of Professor Cassel, and for this reason I shall make his theory the central object of my study.

## 2. THE MEANING OF THE QUANTITY THEORY AS HELD BY THE GOLD DELEGATION

The question which the Gold Delegation examined was whether the current and prospective production of gold, on one hand, and the normal increase in demand for the world's production and trade increase, on the other, are such as to make it likely that the general trend of prices over a series of years will take an upward or downward direction.<sup>2)</sup> Other matters which the Gold Delegation considered were: the problems of the distribution of gold, the effects of price fluctuations on general prosperity, the manner in which such variations can best be measured, and cyclical as distinguished from long-term movements<sup>3)</sup>. The above objects of the Gold Delegation's study clearly indicate that this body wished primarily to present practical and remedial measures rather than to expound economic theories or principles.

However, this is so only on the surface. The Gold Delegation's practical study of economic problems has its theoretical assumptions and background. Although it does not specifically formulate them, it makes assumptions which amount to a quantity theory of gold—a fact which in itself constitutes an important problem.

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2), 3) League of Nations: op. cit. p. 11.

There have been two standpoints which tend to be opposed in connection with this problem of the relationship between gold and prices in its historical development: the one would recognize the quantity theory as its premise and believes that the gold supply determines the general level of prices; the other would reject the quantity theory and denies that the gold supply determines the general price level.

In the interim reports of the Gold Delegation it is recognized that there is a definite causal relationship between the world's total stock of gold and the general level of prices; that a shortage of gold would cause a downward trend of prices; and that the stability of the proper supply of monetary gold would enable a right adjustment of the general level of prices to be made. What the Gold Delegation has in mind are practical and concrete measures to be adopted as remedies, but behind them lies its recognition of the necessary relationship between the quantity theory of gold and the general level of prices. In other words, the Gold Delegation's interim reports imply that variations of the supply of gold determine positively and *a priori* the general level of prices. Such is the substance of the quantity theory of gold which I wish to treat in this article.

### 3. THE CONTENT OF THE QUANTITY THEORY

An examination of the quantity theory of gold reveals the fact it is concerned with two main elements, namely, money and commodity, the former being exchanged for the latter, that the total value of commodities is equal to the total monetary value. The value of money is in inverse ratio to the amount of monetary gold. Although this idea is very crude, it gives rise to the conception that the general level of prices is born of the proportion which monetary value bears to monetary quantity, and this means that the general level of prices is determined by the supply and demand of gold. This idea was expressed by J. S. Mill

in rough outline.<sup>4)</sup> It has since been expressed in various forms and has become very complicated with the increased importance of credit economy as against money economy. Now, what is the particular viewpoint from which Professor Cassel's quantity theory treats the relationship between gold and prices? For a correct understanding of his theory it is necessary to decide this first.

Comparing Professor Cassel's quantity theory with other similar theories, I find two main differences, first in the object of his inquiry and secondly in the method of treatment. Whereas in other quantity theories, national economy or the economy of individual nations, each of which has its own definite sphere, was the object treated Professor Cassel's theory deals with world economy transcending national boundaries. This difference is by no means unimportant. There lies behind it a fundamental theoretical assumption on which his theory is based. The second difference in question marks an advance from the former static viewpoint to the new dynamic viewpoint. Thus, the old quantity theory having proportional variations has been transformed into the new theory which is concerned with trends and tendencies.

Therein lies the essential difference between the old quantity theory and the theory held by Professor Cassel. If the old theory may be considered as a static law of national economy, the Cassel theory may be described as a dynamic law of super-national economy. Whereas the old theory tried to analyse and demonstrate with precision the content of the relationship between the amount of gold and the general level of prices by means of complicated factors provided "other things being equal"; the new theory attempts to seek the same relationship in its tendency and during a long period of time, by taking into consideration the world's stock of gold, trade and general level of prices.

Professor Cassel has two factors for his theory: namely,

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4) Mill, J. S.: *Principles of Political Economy*, pp. 489-503.

the world's total stock of gold and the Sauerbeck-Statist wholesale index number. He makes certain assumptions the explanation of which is necessary for the understanding of his theory. What then are his assumptions?

Let us first consider the general formula of the quantity theory:  $P.T.=M.V$ . In this formula, P stands for prices, T for the amount of transaction, M for the amount of gold, and V for the payment of a unit of gold. In order to prove that M determines P, the following two assumptions are necessary: 1°, that the index number of the general level of prices shows the total amount of the prices of a given commodity or the general level of prices with "weight" attached and in consequence, that they indicate in their content the general level of prices containing the amount of transaction.<sup>5)</sup> 2°, V, which is the cause of the variations in the general level of prices or the payment of a unit of gold, is left unquestioned.<sup>6)</sup>

To put Professor Cassel's quantity theory in a nutshell, we may say it is constructed on two factors, namely, the world's stock of gold and the Sauerbeck-Statist index number of wholesale prices. I shall now proceed to examine each of these two factors.

**A.** The world's stock of gold. As has been stated, his theory claims that the amount of gold determines the general level of prices. By gold is meant here not only monetary gold and gold used for industrial purposes, but also gold which is lying idle. In his opinion, it is necessary, in analysing the causes of fluctuations of the general level of prices, to collect statistical data regarding the amount of money, the extent to which bank cheques are used as a medium of exchange, the total amount of actual sales of commodities, and to compare the proper composition of these factors with the general level of prices. Of these factors, the amount of money cannot be clearly separated

5) Cassel: *Theoretische Sozialökonomie*, 1923. pp. 410-411.

6) Cassel: *op. cit.* pp. 400-401.

from that of gold where the gold standard is enforced. For this reason, Professor Cassel believes it necessary to examine how far variations in gold supply are responsible for variations in the general level of prices by making a comparison between the amount of gold and the trend of prices in the world<sup>7)</sup>. He is unwilling to distinguish clearly between monetary gold and gold used for industrial purposes, because he holds that there is an inter-movement between the demand for monetary gold and that for gold for industrial purposes whenever there is a fluctuation in the value of gold. So long as there exists a gold standard the amount of money cannot be considered as being independent. Instead of comparing the amount of money with the amount of monetary gold (out of the total gold stock), the fact should be noted that there is an inter-movement between monetary gold and non-monetary gold, and that this movement is repeated from time to time.

A close examination of the quantity theories reveals the fact that not all of them use the term gold in the same meaning. The nature of a quantity theory, in fact, depends on the meaning given to that term. Nor is Cassel oblivious of the necessity of choosing between the total gold stock and the monetary gold as a constituent factor of his quantity theory; and chose the former for the reason already given.<sup>8)</sup>

On the contrary, the Gold Delegation,<sup>9)</sup> Kitchin<sup>10)</sup> and Strakosch<sup>11)</sup> in their quantity theories favour the adoption of monetary gold as representing the gold supply.

My own views on this matter are as follows. I re-

7) Cassel: *op. cit.* pp. 406-407.

8) Cassel: *Supply and Demand* (League of Nations: Interim Report p. 71.)

9) League of Nations: Interim Report, pp. 13-17; Nogaro: *La question de l'or devant la Société des Nations* (*Revue d'économie politique*, 45<sup>e</sup> Année, No. 1. p. 32.)

10) Kitchin: *The Supply of Gold compared with the Prices of Commodities* (League of Nations: *op. cit.* p. 79.)

11) Strakosch: *The Economic Consequences of Changes in the Value of Gold* (League of Nations: *Selected Documents*, pp. 23-24)



cognize the superiority of monetary gold over the total stock of gold as the pure monetary factor in a theory of the relationship between gold and prices. I am inclined to believe that those who adopt the total stock of gold instead of monetary gold have not made a profound investigation into the problem in question. To substantiate my contention, I shall cite the following arguments: (1) Such theorists ignore the existence of gold hoards, especially in India, China and Egypt; (2) nor, as has been pointed out by Kitchin<sup>12)</sup>, is the amount of such gold hoards a small part of the total amount of gold stock; (3) the gold hoards in India, China and Egypt are far more rigorously preserved than in other countries, so that there is absolutely no relation between these hoards and monetary circulation or reserve. Thus, the Gold Delegation is right when it states that there has been no instance except in war time when non-monetary gold in any great quantity was transferred into gold reserve; and that it is impossible to believe that its accumulation would influence the monetary situation.<sup>13)</sup>

It is thus possible to demonstrate theoretically that it is more correct to seek the gold supply as a factor of the quantity theory in monetary gold rather than in the total stock of gold in existence. Further, it has been found in practice that the adoption of monetary gold leads to a greater degree of correspondence between the gold supply and the variations in the general level of prices than when the total stock of gold is adopted in the calculation.<sup>14)</sup>

In short, gold taken here as the object of discussion is not simple gold: it represents a monetary factor, which is a social factor. For this reason gold should be understood

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12) Kitchin: *The Supply of Gold compared with the Prices of Commodities* (League of Nations: Interim Report. p. 80.)

13) League of Nations: Interim Report, p. 13.

14) Kitchin: *The Supply of Gold Compared with the Prices of Commodities* (League of Nations: op. cit. pp. 83-85). The average rate of movement in nine years on the side of the general level of prices also properly fits the relative curve line of gold supply.

and grasped in terms of the money which is related to that particular gold. Thus, it is obvious that it is the quantity of monetary gold and not the stock of gold that represents the monetary factor.

B. The Sauerbeck-Statist index number. There are two main reasons why the Sauerbeck-Statist index number of wholesale prices is taken as a constituent factor of the quantity theory of gold. First, it is the world's index number of wholesale prices in countries having the gold standard. Secondly, this index number has various characteristics in the way it is obtained.

The first reason may be studied from two points of view, positive and negative. On the positive side, we may point out that during the period in question, viz. 1850-1910, which was taken in constructing the index number, Great Britain was a free-trade country and was the central market of the world. She was on the gold standard during the entire period. Thus, this index number has a different significance from those of the wholesale prices in other countries, each of which may be on the gold standard. For this reason, it is right to consider the Sauerbeck-Statist index number as an important factor in the quantity theory of gold. On the negative side, we may point out the fact that other index numbers, say, of retail prices would have very little value in the quantity theory. Nor would the index number of the prices of finished goods be of much use. For their adoption bristles with difficulties. In the case of the former, the multitude of sale conditions will be its draw back, while the latter's difficulty lies in the multitude of qualities.

Let us now consider the second reason for the adoption of the Sauerbeck-Statist index number of wholesale prices as a factor of the quantity theory, and examine the special features of the method of arriving at that index number. This index number comprises the prices of forty-five commodities, takes the annual averages of their prices each month and indicates the percentages of the average prices

during the period 1867-1877. These forty-five commodities are sub-divided as follows: nineteen foodstuffs (eight vegetables, seven meats, sugar, coffee and tea), twenty-six raw materials (nine minerals, eight textiles, and eleven others).<sup>15)</sup> No weight is attached to any of these commodities. But the purpose of weight is realised inasmuch as the representation of many different varieties of important commodities in the index number amounts to an indirect attachment of weight.

It is because of the foregoing features that the Sauerbeck-Statist index number is used as a factor of the quantity theory despite its numerous defects such as the dubiousness of the sources from which its materials have been derived, the impropriety of the selection of the materials, the lack of unity in adopting stock quotations, the lack of due recognition of the importance of materials, etc. Because of the fact that this index number has the efficacy of weight just as if weight had been actually attached to it (though its efficacy is indirect), it comes very near the general level of prices having weight, which is demanded by P.T. in the formula  $P.T. = M.V.$ , and incidentally approaches the idea of the total value of definite commodities. It is clear that this index number is necessary as a factor of the quantity theory.

Because of the foregoing reasons we can say that the Sauerbeck-Statist index number is a proper means of investigating the dynamic laws and tendencies in super-national economy.

To summarise: the purpose of the quantity theory is to express the dynamic trends and laws of world economy; the theory is justified in using the Sauerbeck-Statist index number because of practical need, though there are some dubious points in the theory; whether the total stock of gold or monetary gold should be adopted is debatable. But I myself am in favour of using the latter.

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15) Cf. Sauerbeck: *Course of Average Prices of General Commodities in England*, 1908.

#### 4. THE FEATURES OF THE STRUCTURE OF THE QUANTITY THEORY OF GOLD AND THEIR CRITICISM

I have so far discussed the significance and content of the quantity theory of gold. I shall now consider the various features of the structure of the theory in order to explain and criticize them. Here again I shall take the theory as advanced by Professor Cassel.

The principal point of his theory<sup>16)</sup> is that, instead of taking up the actual relationship between the quantity of gold and the general level of prices, he takes up the specific variations of the actual quantity of gold which, he says, determine the general level of prices. But let us further examine his idea. Here we must examine the basic assumption on which his theory is constructed. By taking up the specific variations, he does not mean to refuse to make a direct comparison between the quantity of gold and the general level of prices. He has his own ideas about the amount of gold; he believes that it is the difference between the normal gold supply during a definite period of time and the actual gold supply during the same period that determines the general level of prices.

One cannot overlook the fact that his theory is based on two fundamental ideas, first about the general level of prices before and after a specific period of time, and secondly about the correspondence between the actual amount of gold during a specific period and the world's general economic development during the same period. Let us consider these facts in more detail.

If the general level of prices were the same before and after the period in question, it would be very advantageous for the construction of a specific idea about the amount of gold as above stated, for in such a situation any increase in the supply of gold would have no effect on the general

16) Cassel: *Theoretische Sozialökonomie* 1923, pp. 417-424; League of Nations: *Interim Report*, pp. 75-78.

level of prices either before or after the period in question ; and an increase in the gold supply would be indispensable for the general economic development.

Now, what are Professor Cassel's ideas regarding the correspondence between the actual increase in the gold supply and the world's general economic progress? Or, what are his ideas about the rate of the actual increase in the gold supply and that of the world's general economic development? His ideas of the rate of the actual increase in the quantity theory are contained in his famous doctrine of the 3 per cent annual increase.

In measuring the rate of the world's general economic development which is in correspondence with the rate of increase in the gold supply of the world, Professor Cassel has two methods, direct and indirect. The first method is to measure directly from the production of commodities, while the second method is to measure indirectly from the output of gold. I shall examine them more in detail.

Again, Cassel has two different methods of direct measurement: one with weight and the other without it. By means of the first method, he calculates the rate of increase in the world's production of pig iron during the period 1850-1907, the rate being 4.2 per cent. He also finds the rate of increase in the production of agricultural products to be 1.2 per cent. Assuming that food represents a third of social income and industrial goods represent the other two-thirds, the average annual rate of industrial development is 3.2 per cent. In the second method, no weight is attached to the amount of either food or industrial goods. Both are given the same treatment and their average rate is placed at 2.7 per cent. Cassel declares that the results of the two methods give the average rate of economic development during the period 1850-1907 as 3 per cent.<sup>17)</sup>

But the vital point of his theory is found rather in his

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17) Cassel: *Supply and Demand* (League of Nations: Interim Report, p. 74).

indirect method of calculation. He starts from the fact that the increase of the world's stock of gold during the period 1850-1910 was made at the annual average rate of 2.8 per cent. After pointing out that the general level of prices during the same period was the same as the above figure, he concludes that, although economic development may have been made, the increase in the stock of gold during the period must have been both necessary and sufficient for the maintenance of the general level of prices alike in 1910 and 1850.<sup>18)</sup> He further argues that in the face of the foregoing evidence, it may be said that the general economic development during the period in question was approximately proportional to the increase in the supply of gold.<sup>19)</sup>

I have given above Professor Cassel's assumption, namely, the basic factors on which he bases his idea of specific variations in the supply of gold. His idea demands the increase of gold during a definite period of time, a corresponding economic development, and the identity of the general level of prices at the beginning and end of the period in question. Thus begins the *montage* of this theory. He gives the name of "normal increase of gold" to the increase of gold during a definite period of time, which increase does not alter the general level of prices even after the same period. He further gives the name of "normal gold supply" to the amount of gold at a time during the period on his assumption of "normal increase of gold". With this idea he proceeds to take 2.8 per cent as representing the annual average increase for the period 1850-1910, taking as the basis of his calculation 10,000,000,000 marks for the year 1850, in order to secure a series of normal gold supplies. This is shown by the third term<sup>20)</sup> in Table I and the line in Figure I.<sup>21)</sup>

18) Cassel: op. cit. p. 74.

19) Cassel: Theoretische Sozialökonomie 1923. p. 403.

20) League of Nations: Interim Report, p. 77.

21) League of Nations: op. cit. p. 78; Cassel: Theoretische Sozialökonomie, 1923. p. 417.

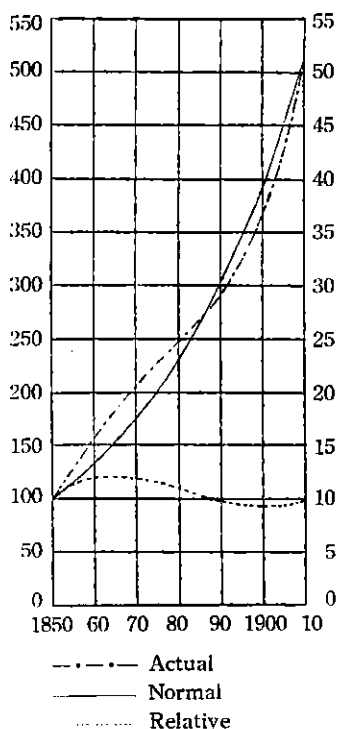
Table I. The World's Stock of Gold.

End of Year	Actual Stock of Gold (in Million Marks)	Normal Stock of Gold (in Million Marks)	Relative Stock of Gold
1850	10,000	10,000	1.00
1855	12,680	11,470	1.11
1860	15,370	13,160	1.17
1865	17,795	15,100	1.18
1870	20,375	17,320	1.17
1875	22,555	19,880	1.13
1876	22,973	20,435	1.12
1877	23,428	21,005	1.12
1878	23,900	21,591	1.11
1879	24,319	22,193	1.10
1880	24,735	22,800	1.08
1881	25,146	23,448	1.07
1882	25,525	24,102	1.06
1883	25,884	24,774	1.04
1884	26,272	25,465	1.03
1885	26,650	26,160	1.02
1886	27,046	26,890	1.01
1887	27,433	27,640	0.99
1888	27,836	28,411	0.98
1889	28,272	29,204	0.97
1890	28,775	30,010	0.96
1891	29,266	30,847	0.95
1892	29,823	31,708	0.94
1893	30,424	32,593	0.93
1894	31,124	33,502	0.93
1895	31,885	34,430	0.93
1896	32,670	35,391	0.92
1897	33,595	36,378	0.92
1898	34,733	37,392	0.93
1899	35,951	38,435	0.94
1900	36,957	39,510	0.94
1901	37,970	40,612	0.93
1902	39,140	41,745	0.94
1903	40,438	42,910	0.94
1904	41,815	44,107	0.95
1905	43,366	45,320	0.96
1906	44,970	46,584	0.97
1907	46,614	47,884	0.97
1908	48,381	49,220	0.98
1909	50,192	50,593	0.99
1910	52,000	52,000	1.00

Professor Cassel further contends that so long as variations in the general level of prices during the period 1850-1910 are attributable to variations in the gold supply during the same period, the general level of prices can be said to

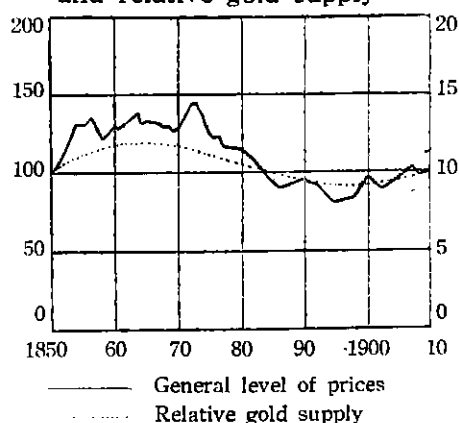
be due to the disparity between the actual gold supply and the normal gold supply. He says that, if the gold supply of the year whose addition of gold is 2.8 per cent (which is the average annual rate for the period 1850-1910), is to

Figure I.  
The Gold supply of the  
World



be regarded as the normal gold supply, the divergence between the actual gold supply and the normal gold supply will tend to be proportional to variations in the general level of prices; and for this reason it should be regarded as the cause of variations in the general level of prices, as shown in Figure II.<sup>22)</sup>

Figure II. General level of prices  
and relative gold supply



Professor Cassel goes on to state that a consideration of Figure II indicates that the relative gold supply shows variations which are almost the same as those in the general level of prices. But he does not take up the short-time variations of the general level of prices,<sup>23)</sup> because he thinks

22) Cassel: *op. cit.* p. 421; League of Nations: *Interim Report*, p. 78.

23) Aftalion also expresses a similar opinion. [Aftalion: *Les causes*



that only the secular variations of the general level of prices are related to the question at issue. He concludes by saying that, when the period 1850-1910 is studied with the foregoing points in mind, it will be found that variations in the relative gold supply would have been unthinkable in an age which was content with the old comparison between the general level of prices and the gold supply and which was satisfied with doubtful ideas about such factors. It was, he says, after the conception of the normal gold supply became firmly established,<sup>24)</sup> that the dependency of the general level of prices upon the gold supply came to have a definite meaning, and the solution of the question at issue by means of actual materials became possible.

The principal feature of his theory of gold is that he does not demonstrate the effects of the gold supply on the general level of prices directly from the gold supply and the general level of prices, but that he takes up variations of the relative gold supply during the period 1850-1910 to show that they cause variations in the general level of prices. He considers that the real cause of the variations in the general level of prices is the divergence between the actual production of gold and the normal gold supply, which is calculated on the basis of the average rate of gold increase, namely, 2.8 per cent.

Let us next examine why Cassel makes a comparison between the variations of the secular level of prices and the relative gold supply (which is the divergence between the normal gold supply and the actual production of gold). In other words, we should investigate why Professor Cassel prefers to compare the relative variations of gold supply with the secular variations of the general level of prices.

He makes such a comparison instead of following in the footsteps of those who ignore the annual production of

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et les effets des mouvements d'or vers la France (Société des Nations: Documents sélectionnés sur la distribution de l'or)].

24) Cassel: *op. cit.* pp. 416-426.

gold on the ground that its amount is negligible when compared with the accumulated stock of gold, and he goes still further and after determining the relative gold supply, compares it with the secular general level of prices, establishing causal relations between the two. His theory is an attempt to express quantitatively an old subject of study which had come to consist in mere accumulation of adjectives and adverbs, and actually it has shown interesting results. Although a similar point of view is taken up by Kitchin in his treatment of monetary gold and the discount rate of the Bank of England,<sup>25)</sup> Cassel makes a special assumption of his own as I have already elucidated. His theory, in the last analysis, is a matter of definition. His conclusion from the mere fact that the general level of prices is identical before and after a certain period in history that the same period has been characterized by a general economic development, does not sound plausible. At the most, it is suggestive, but it remains a product of insufficient study, because a dynamic examination of the general economic development or the increase of general economic transactions should take into consideration other causes, such as increase of population, technical progress, etc.

Lastly, I wish to draw attention to the views of Aftalion, who considers the implications of variations in the relative gold supply from an angle different from Cassel's. Aftalion refuses to regard the rate of monetary gold as constant, because in his opinion it shows both regular and cyclical variations.<sup>26)</sup> He analyzes and criticizes Cassel's theory as follows: "If cyclical variations are taken away from the secular variations of the rate of currency in monetary gold, it will be found that the increase made in the rate during the periods of price enhancement 1850-1873 and 1896-1914

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25) Kitchin, J: *L'offre d'or comparée avec le prix des denrées*. (Société des Nations: Rapport provisoire de la Délégation de l'or, p. 88)

26) Aftalion: *Monnaie, prix et change*, Paris 1927, pp. 180-181.

will not correspond to the disparity between the actual gold supply and the normal gold supply, as suggested by Cassel.<sup>27)</sup>

Aftalion's contention is that either of the following two cases shows a variation which is greater in magnitude than the variation of gold production: (1) when the general level of prices rises over and above gold production during a secular period of price enhancement; (2) when the general level of prices goes down below gold production during a period of price depreciation. In other words, he suggests that cases as stated above may indicate the existence of a secular variation in the rate of the currency of monetary gold.

The point Aftalion makes is full of interest, because Cassel's quantity theory ignores, in its definition, the term  $V$  in the equation  $P.T. = M.V$ . Theoretically speaking, Aftalion's contention is correct, but as his argument is based on data collected in France only,<sup>28)</sup> further study and examination will be necessary before a final verdict on his arguments and his conclusion can be pronounced.

### CONCLUSION

It is claimed that the quantity theory of gold, whether it be based on the world's total gold supply as in the case of Professor Cassel, or on the monetary gold supply as in the case of the Gold Delegation and other scholars, can give a clear and necessary explanation of the relations between the general level of prices and the total stock of gold or the gold supply, as the case may be. The theory also considers that specific variations in the stock of gold or monetary gold are unitary and determine the prices of commodities. Such an idea is not generally acceptable.

27) Aftalion: *Les causes et les effets des mouvements d'or vers la France*. (Société des Nations: Documents sélectionnés sur la distribution de l'or p. 11.)

28) Aftalion: *Monnaie, prix et change*, Paris 1927, pp. 180-181.

The exponents of the quantity theory believe *a priori* in the influence of gold on the general level of prices. Moreover, their emphasis on such a view is natural at the present time because of the prevailing practical demand for increases in gold or monetary gold in order to meet the depreciation of the general level of prices. Viewed from this practical standpoint, the opinion of the Gold Delegation is clearer and more correct than that of Professor Cassel. But after all, the difference in the views of both Professor Cassel and the Gold Delegation is only one of degree. When viewed from a dynamic standpoint, variations of the general level of prices cannot take place alike or generally for all commodities. A more practical conception would be that such variations primarily occur on their own account in certain commodity markets; and in consequence the idea is not acceptable that variations in the stock of gold or monetary gold are ultimate causes that operate on general commodities equally and inevitably.

By this it is not meant, of course, to deny the possibility of effects of the stock of gold or monetary gold on the general level of prices. In some specific cases, for instance, when the gold supply shows an extraordinary increase in its amount, the quantity theory will be found serviceable. But even in this case price variations occur in the markets of individual commodities. If the gold supply is not increased to any extraordinarily great extent, the quantity theory of the causal relations between the gold supply and the general level of prices will be found untenable. Therein lies the greatest difficulty of the theory.

The foregoing study has shown that the quantity theory is not necessarily a key to the solution of the problem of the relationship between the gold supply and the general level of prices in the world today. The theory has no real importance for the world, being supported by the Gold Delegation merely to serve the purpose of certain financial capitalists.

As has been pointed out by McKenna, the present

century is an age of money as against the industrial age of the preceding century. It is indeed tolerably clear that theories and problems of money will exercise a far greater powerful sway over the present age than they did over the past.

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